# Constructive

Resolved: The United States federal government should impose price controls on the pharmaceutical industry.

We Strongly negate this resolution for the sole contention that imposing price controls on the pharmaceutical industry would lead to the extinction of the human race.

We’d like to present the following definitions:

Price controls are defined by Black’s Law Dictionary as “a price ceiling determined by the government on essential goods and services to keep the cost of living under check. [a]

**Subpoint A. Price controls benefit the economy**

According to Peter Olson and Louise Sheiner from the Hutchins Center explains: “(CMS) estimates prescription drug spending will grow an average of 6.3% per year over the 2016-2025 period. In 2015, the U.S. spent $325 billion on retail prescription drugs. That’s 1.8% of GDP, or 10% of total national health expenditures.” (endquote)[a] By reducing the amount of GDP Americans spend on drugs, people’s money can be focused elsewhere, growing the economy since Americans have more free capitol and expendable income.

**IFF: They read a constructive about benefits of Price Controls to the economic growth:**

We concede that price controls benefit the economy.

**Subpoint B. A stronger and growing economy kills bees**

According to Andrew Porterfield, “Trade and economic growth, not pesticides, are major driver of beehive declines. “Such high colony losses in the summer and year-round remain very troubling. Honey imports and exports and dramatic economic changes in certain nations have been more responsible for honeybee colony decreases than GMOs, pesticides, mites or diseases. According to a new study data points to a consistent, global decrease in bee colonies. Bees are now in trouble as never before.” [b]

**Subpoint C. A decrease in the bee population would causes famines that would cause conflicts that would escalate to Nuclear War**

According to Amelia Heuer, head of research for the SEED foundation, “Bees play a vital part in our natural ecosystems as they are responsible for the pollination of many fruit, nuts, vegetables and other species. 100 crop species provide 90% of food worldwide and those are pollinated by bees. Extremely high mortality rates of bees in Europe, America and Asia however are putting the balance at risk. each decade 10% of the world’s biodiversity is lost, one factors being the decreasing bee population.” [c]

According to FDI, “Conflicts in the next century will likely be fought over a lack of resources. Researchers point to the French and Russian revolutions as induced by a lack of food. Germany’s World War Two efforts are said to have been inspired by its perceived need to gain access to more food. Julian Cribb writes that if “large regions of the world run short of food, then wholesale, bloody wars are liable to follow. “An increasingly credible scenario for World War 3 is a festering chain of resource conflicts. A study by the IPR Institute indicates that where food security is an issue, it is more likely to result in some form of conflict. Darfur, Rwanda, and the Balkans experienced such wars. The UK Ministry of Defense, the CIA, the US Center for Strategic and International Studies and the OPRI, all identify famine as a potential trigger for nuclear war.” [d]

**Subpoint D. Nuclear War would lead to the extinction of the human race**

Steven Starr, a Scientist writes, “The world’s leading climatologists published studies that evaluated environmental consequences of a nuclear war, the consequences of even a “small” nuclear war would include catastrophic disruptions of global climate and massive destruction of Earth’s protective ozone layer. These peer-reviewed studies predict war fought with less than half of US or Russian strategic nuclear weapons would destroy the human race. A US-Russian nuclear war would create such extreme long-term damage to the global environment that it would leave the Earth uninhabitable for humans and most animal forms of life. “A nuclear war between Russia and the U S, even after the arsenal reductions planned, could produce a nuclear winter. EMPs from nuclear detonations would destroy all modern electronic devices. Once nuclear weapons were introduced into a US-Russian conflict, there would be little chance that a nuclear holocaust could be avoided. Theories of nuclear de-escalation are unrealistic. The US and Russia have 500 launch-ready ballistic missiles armed with a total of at least 1800 strategic nuclear warheads. Launch-ready nuclear weapons represent a self-destruct mechanism for the human race. Even a “successful” first-strike, which destroyed 100% of the opposing sides nuclear weapons, would cause the citizens of the side that “won” the nuclear war to perish from nuclear famine, just as would the rest of humanity.” [e]

In conclusion, we strongly negate this resolution for the sole contention that price controls will cause the extinction of the human race.

[a] Peter Olson and Louise Sheiner 17, 4-26-2017, "The Hutchins Center Explains: Prescription drug spending," Brookings, <https://www.brookings.edu/blog/up-front/2017/04/26/the-hutchins-center-explains-prescription-drug-spending/>

[b] Andrew Porterfield, 2015. Andrew Porterfield is a writer, editor and communications consultant for academic institutions, companies and non-profits in the life sciences

[c] Amélie Heuër and Carolin Ehrensperger, 2015. Amélie Heuër worked for SEED from 2009 to 2016 as Head of Research

[d] FDI 12, Future Directions International, a Research institute providing strategic analysis of Australia’s global interests; citing Lindsay Falvery, PhD in Agricultural Science and former Professor at the University of Melbourne’s Institute of Land and Environment, “Food and Water Insecurity: International Conflict Triggers & Potential Conflict Points,” <http://www.futuredirections.org.au/workshop-papers/537-international-conflict-triggers-and-potential-conflict-points-resulting-from-food-and-water-insecurity.html>

[e] Steven Starr 14, the Senior Scientist for Physicians for Social Responsibility and Director of the Clinical Laboratory Science Program at the University of Missouri, 5/30/14, “The Lethality of Nuclear Weapons,” http://www.paulcraigroberts.org/2014/05/30/lethality-nuclear-weapons/

## Price controls help grow the economy

#### Prices have risen per GDP

Peter Olson and Louise Sheiner 17, 4-26-2017, "The Hutchins Center Explains: Prescription drug spending," Brookings, https://www.brookings.edu/blog/up-front/2017/04/26/the-hutchins-center-explains-prescription-drug-spending/

Americans spend a lot on prescription drugs, more per capita than any other country by far. Pharmaceuticals represent a significant—and growing—share of the country’s health spending, both because new, and often costly, drugs are emerging from the lab and because prices of many drugs are rising much faster than prices of other goods and services. The Center for Medicare and Medicaid Services (CMS) estimates prescription drug spending will grow an average of 6.3% per year over the 2016-2025 period. Highly publicized cases of very expensive new drugs as well as sharp increases in the price of some older drugs has drawn widespread attention—and criticism—from the public, members of Congress and President Donald Trump. Because the U.S. government pays more than 40% of the retail prescription drug tab, rising spending on drugs is putting pressure on the federal budget. It also contributes to rising health insurance premiums. In this explainer, we describe recent trends in drug spending, what’s driving them, and what role government policy plays. HOW MUCH DOES THE U.S. SPEND ON PRESCRIPTION DRUGS? In 2015, the U.S. spent $325 billion on retail prescription drugs (drugs purchased at pharmacies and through the mail, as opposed to those administered directly by doctors), according to the Centers for Medicare & Medicaid Services. That’s 1.8% of GDP, or 10% of total national health expenditures. HOW HAS U.S. RETAIL PRESCRIPTION DRUG SPENDING CHANGED OVER TIME? It has grown considerably since the 1980s. Figure 1 shows retail prescription drug spending since 1960, both as a share of GDP and as a share of total health spending. It rose from the early 1980s to the early 2000s (by both measures), and then after a period of slow growth, rose sharply in 2014 and 2015.

Warrant: By reducing the amount of GDP Americans spend on drugs, people’s money can be focused elsewhere, growing the economy since Americans have more free capitol and expendable income.

#### Drug Price Controls Are Vital in a Market That’s Not Free

Bernstein, Jared. Drug Price Controls Are Vital in a Market That’s Not Free. New York Times, June 29, 2016. [**https://www.nytimes.com/roomfordebate/2015/09/23/should-the-government-impose-drug-price-controls/drug-price-controls-are-vital-in-a-market-thats-not-free**](https://www.nytimes.com/roomfordebate/2015/09/23/should-the-government-impose-drug-price-controls/drug-price-controls-are-vital-in-a-market-thats-not-free).

If Charles Dickens were writing today and seeking a life model for one of his villains, he’d be pleased to find Martin Shkreli, the former hedge fund manager who, upon acquiring the rights to a critical drug for patients with life-threatening infections, raised its price to $750 from $13.50 per tablet. We cannot count on drug companies to make necessary medicines affordable or count on them to develop the drugs we most need. But the problem we face is less this particular individual than the fact that we’re imposing a market structure on something that should be a public good. We wouldn’t squirm watching this guy try to explain himself if he were selling yachts or high-end real estate. The challenge is finding the public policies that will take pharmaceuticals from what any objective person would view as a highly distorted market — prices don’t rise 5,500 percent overnight in a functioning market — to a more rational one. Hillary Clinton just released a new proposal with various ideas that point in that direction: allowing Medicare to bargain for lower drug prices, a monthly cap of $250 for patients with chronic conditions, research and development investment requirements for highly profitable drug companies, prohibition of delaying tactics that keep generics out of the market, and more. All good ideas that incrementally push in the right direction. But to go further will require two more aggressive steps: price controls and new incentives for drug research. Price controls for drugs, which are common in other ad8vanced economies, increase affordability. But even when the mechanism is “cost-plus” pricing — the government allows drug companies some degree of markup — their profits will still decline from current levels. The producers argue that this will stifle their incentive to innovate. But the evidence is increasingly clear that we cannot count on the private sector to make necessary medicines affordable. In fact, given the incentive structure, neither can we count on private drug companies to develop the drugs we most need versus the ones that will be most profitable. In health economics, maximizing social benefits is often at odds with private benefits. The simplest solution is to take excessive profit out of the equation and ramp up what is already a robust public medical research infrastructure. This could take the form of an expanded National Institutes of Health, where researchers are employed by the government, or private research could be subsidized. Either way, the key outcome is that the patents themselves would be public goods in the public domain, meaning no more price gouging. But wouldn’t this arrangement fail to inspire the most innovative researchers? To keep such competition alive, economist Joe Stiglitz recommends a prize fund, where those who developed the most beneficial medicines would get a windfall reward. The winners could get rich, but they could not restrict the benefits of their findings to extract more profits from sick people. It may take incremental steps like those offered by Hillary Clinton to start the ball rolling. If such steps prove insufficient — and if Dickensian stories still haunt the news — we’ll need bolder steps. But the status quo cannot hold.

Warrant: By imposing price controls, and reducing prices, it would open the market, and allow more drugs to be sold, and grow the economy

#### Successful Specialty Drug programs

Scientist Magazine® 18, 5-1-2018, "How Orphan Drugs Became a Highly Profitable Industry," https://www.the-scientist.com/features/how-orphan-drugs-became-a-highly-profitable-industry-64278#.W-zgFvGasdc.email

legislation incentivizing the pharmaceutical industry to invest in therapeutics for rare diseases has been incredibly successful. “When I started working on rare disorders, the first question was, ‘Why study a rare disease that impacts so few people?’” Shore recalls. “But in recent years, the pharmaceutical industry has become very interested in studying rare diseases as a drug discovery strategy.” As a result, hundreds of new rare-disease treatments have entered the market over the past few decades, and orphan drug development has become a highly profitable industry. While this has undoubtedly helped patients, there are downsides to this trend. Some economists and scientists suggest that companies have abused the financial incentives for rare-disease drug development, and they predict a coming backlash to the hefty price tags of these medications. More than meets the eye To date, around 7,000 rare diseases have been identified. In the U.S., they are defined as conditions that affect fewer than 200,000 Americans (in the E.U., disorders occurring in fewer than one in 2,000 Europeans fall into this category). (See “Rare Disease: By the Numbers” here.) In total, these conditions end up being quite common—they affect an estimated 25 million people in the U.S. and 30 million in Europe. “In your circle of friends and family, there is certainly somebody who is affected that may not have told you about it,” says Heather Etchevers, a developmental biologist who studies rare congenital malformations, such as giant congenital melanocytic nevus, a large, pigmented birthmark, at the French National Institute of Health and Medical Research (INSERM). “And not all diseases are easily visible.” The result of this sea change is that nowadays, firms with marketing authorization for orphan products are more profitable than those without. Still, while rare diseases are common in the aggregate, each condition is unique. And before the mid-1980s, when governments began passing legislation that encouraged companies to invest in these uncommon conditions, industry was reluctant to pour its money into products with such minuscule markets. “If you look at it from an economic perspective, at the time there was a clear market failure—there was no incentive for companies to develop [an orphan] drug, it just didn’t make sense,” says Dyfrig Hughes, a health economist at Bangor University in the U.K. who is involved in clinical trials for rare conditions. “That was in the era of high-volume and low-cost treatments.” In the decades since, the pharmaceutical industry has changed in numerous ways. For one, some studies suggest that the cost of drug development has increased across the board—one analysis by researchers at the Tufts Center for the Study of Drug Development estimated that the average research and development (R&D) costs per drug went up from $802 million for products approved in the 1990s to $2.6 billion for those approved between 2005 and 2013.3 It’s important to note, however, that the price tag of drug R&D is a contentious subject with little consensus: a subsequent examination by another group generated a much lower estimate—a median of $648 million per drug, based on medications approved between 2006 and 2015.4 In addition to rising prices, advances in science have yielded a greater understanding of the complexity of diseases—which, according to Andrew Lo, an economist at the MIT Sloan School of Management, has led to a trend in recent years of investors shying away from drug development in general, particularly in the early stages. “The irony is that as we’ve gotten smarter about the nature of these diseases, that’s actually caused the risk for investing in these therapies to increase,” Lo says. Despite higher costs and less-certain returns, investments in drug development on the rare disease side appear to be bucking the trend affecting the greater biomedical industry, Lo says. “Rare diseases have actually done well, thanks to the incentives that the Orphan Drug Act provides.” With a little help from the fedsThe US Orphan Drug Act (ODA), enacted in 1983, was a game changer for rare diseases. Before the law passed, only 10 orphan drugs had entered the market. By the end of 2017, more than 450 products for 668 orphan indications were FDA-approved. The European Union passed a similar policy in 2000.

Warrant: This proves that a government regulated drug program will hugely benefit the release of new drugs and the sale of new drugs due to the high profit, therefore price controls will drive growth in the economy.

Status-quo Warrant: This also proves that the status quo is working and therefore there is no need for change

## No Bees + Economy = Nuclear War

#### Economic growth destroys bee populations---no alt causes---comparative evidence

Andrew Porterfield, 2015. Andrew Porterfield is a writer, editor and communications consultant for academic institutions, companies and non-profits in the life sciences. He is based in Camarillo, California. Genetic Literacy Project. 12/3/15. “Trade and economic growth, not pesticides, major driver of beehive declines?” <https://geneticliteracyproject.org/2015/12/03/trade-economic-growth-not-pesticides-major-driver-beehive-declines/> Accessed 7/6/18 //WR-NCP

Trade and economic growth, not pesticides, major driver of beehive declines? The debate over whether bees are threatened and if so, why, is contentious. Globally, the number of bee hives has risen steadily over the past decade, and the number of bee hives is at record levels in North America and throughout most of Europe. But there are definite problems, say top entomologists. While the number of over-winter hives is at their highest numbers in years, losses during the summer are stubbornly high. “Such high colony losses in the summer and year-round remain very troubling,” said entomologist Jeff Pettis, a researcher at the USDA's Agricultural Research Service Bee Research Laboratory in Beltsville, Md., and a co-author of the government survey that tallied up the bee losses. But what's driving these losses? Activists say pesticides, neonicotinoids in particular, are the primary driver. But overall colony numbers have risen in the decade and a half since the pesticide was introduced. Most scientists say the issue if multifactorial. But which factors are most key? Honey imports and exports and dramatic economic changes in certain nations have been more responsible for honeybee colony decreases (and some increases) than GMOs, pesticides, mites or diseases, according to a new study by German researchers. The research, conducted by analyzing bee colony and honey production data collected by the U.N. Food and Agricultural Organization (FAO), countered popular assertions by environmental non-government organizations and even some European countries, which have advocated (and enacted) bans on neonic pesticides, and looked at mites and diseases as a cause for colony collapse disorder (CCD) and other declines in populations of European honey bees. Robin Moritz and Silvio Erler at Martin Luther University in Halle, Germany, crunched numbers submitted to the FAO by more than 100 countries over 50 years (from 1961 to 2013), and found that major economic upheavals and trade in honey accounted for decreases in bee colonies. Pesticide use, disease or mite infestation did not at all correlate with decreases in colonies. Moreover, the data clouded the picture often seen in media and NGO reports, pointing to a consistent, global decrease in bee colonies. While some countries, like the US and in Western Europe, have seen a consistent decline in colonies, other countries have seen dramatic increases in colonies and honey production. Southern Europe, for example, saw a doubling of colonies over the past 50 years, while South American colonies grew by 5.2 percent annually, African colonies grew by 3.3 percent annually, and Asian colonies grew by 4.4 percent annually (all over the past 50 years). Overall, despite the decreases in Western Europe and the United States, the FAO data showed an increase in the number of all colonies globally. Perhaps significantly, the data also showed an increase in demand for pollination which was higher than the number of existing honeybee colonies. In fact, “countries with a positive correlation between honey production and colony number are the main honey exporters, while countries with a negative correlation are those importing honey,” Moritz and d Erler wrote. “None of the colony number dynamics of the past 50 years, neither increase nor decrease, show any relation to the arrival of novel pests or the use of novel pesticides.” But the Natural Resources Defense Council, among other groups, have advocated banning neonics because of alleged links to colony collapse disorder and other bee population declines. The NRDC petitioned the EPA to ban use of neonicotinoids pesticides, and cited several studies that used “field realistic” levels of neonics in a solution to determine bee behavior. A recent NRDC blog noted that “Scientific studies have shown that chronic exposure of honeybees to field-realistic levels of neonics can impair learning and memory, making their pesticide habit a dangerous one.” EPA should cancel the use of neonics. An NRDC legal petition asks EPA to initiate cancellation proceedings for all neonicotinoids pesticide products, beginning with those for which safer alternatives are available. Systemic and persistent pesticides like the neonics pose too much risk to non-target and beneficial wildlife. But while the NRDC cited studies looking at sub-lethal behavior and mortality rates, it did not look at actual field studies, nor did it cite studies looking at mites, disease and other factors. And other groups, as we have covered in Genetic Literacy Project stories, continue to look at the herbicide glyphosate (and, by extension, genetically modified crops) as a culprit in colony collapses. Anti-GMO scientist Don Huber warned his readers to focus on “a more problematic cause of CCD”: glyphosate. Huber claimed that glyphosate’s widespread use worldwide could only link it to bee mortality. And the pro-organic website Natural News ran a headline in 2014, “Groundbreaking study shows that Roundup causes honeybees to starve,” based on an Argentine study that did not actually show that. The USDA and the White House have looked at a number of other factors to develop a picture of colony collapse disorder that has far more complex causes: Varroa mite, a parasite-containing bug that helped wipe out hives in the 1980s. Global climate change, which could be affecting how bee foraging behaviors respond to weather patterns. Decreases in numbers of flowering plants, to which a White House task force recommended the planting of flowers and other plants to increase opportunities for pollination. Insecticides, which may kill bees outright or affect their foraging behavior All in all, about 60 possible environmental causes of bee health threats have been investigated. But nobody, until the German study, has tried to systematically match economic issues, individual country dynamics, and the behavior of professional beekeepers with changes in colony numbers. The closest match, the German researchers wrote, were associated with severe political, social and economic changes, such as a 66 percent decline in colonies in Madagascar after a political coup in 1977, and a 73 percent decline in Burundi during that country’s civil war, and significant declines in eastern Europe after the collapse of the Soviet Union. But in the U.S. and Western Europe, the declines have been steady and significant. Last year in the US, the number of disappearing hives reached 42 percent. The researchers pointed to the growth of commercial beekeeping as a possible link to colony declines, especially in the US and Western Europe. According to Moritz and Erler: It may well be that slowly changing societal values, from hobby to business beekeeping, are important drivers of colony declines. Clearly, the increase of honey trade in relation to the national honey production in Europe goes hand in hand with the colony declines over the five decades listed in the FAO database. Beyond trade figures, the researchers did not clarity exactly how professional beekeeping practices could contribute to decreases in bee colonies, and how practices in South America or Southern Europe may differ from the United States and Western Europe. However, several beekeeping blogs and articles reveal a rather passionate rivalry between hobbyists and professional beekeepers, including blaming incompetence on either side for what eventually became colony collapse disorder. “I have a friend who works for a very large scale commercial beekeeping operation in California, and when I asked her about Colony Collapse she said they didn't have a problem, and if others did it probably had more to do with bad beekeeping,” wrote one. Meanwhile, a professional beekeeper told one writer: Ninety-nine percent of the so-called beekeepers are hobby beekeepers. In North Carolina there are thousands of hobby beekeepers. And there are less than ten commercial beekeepers. There’s a public misconception that a beekeeper’s a beekeeper’s a beekeeper. But the difference between a hobby beekeeper and a commercial beekeeper is like the difference between someone with an aquarium in his living room and somebody that owns three oceangoing deep-sea vessels. On the other hand, the long-distance transport of beehives practiced by commercial beekeepers also has been blamed for colony depletion. According to British beekeeper (and self-professed agent provocateur) Philip Chandler, the spread of the varroa mite is due to bee transport: Bees are now in trouble as never before and much of the blame for this potentially disastrous state of affairs must be placed at the door of negligent, commercial beekeepers. The inter-continental migration of pests and diseases has widely been blamed on climate change, but in fact the spread of the Varroa mite from its native Asia and its original host species, the Asian bee Apis cerana, can be directly linked to the commercial bee trade. So, while pressure has mounted on the United States to ban a pesticide that already is about halfway through a ban by the European Union, colony declines in some countries may continue despite any actions taken for or against neonics and other pesticides. And while correlation does not equal cause, the German research opens the door to including economic and business factors behind bee colony changes.

#### Bee collapse wrecks food supply and bio-D and turns the economy

Amélie Heuër and Carolin Ehrensperger, 2015. Amélie Heuër worked for SEED from 2009 to 2016 as Head of Research. Before joining SEED Amélie worked for several years on marine conservation and coastal resources management in the Philippines, where she conducted and managed several socio-economic and livelihood research projects. While working for the NGO Coral Cay Conservation, she was also in charge of community development and initiated a few livelihood development projects. Previously she worked in London as Deputy Manager for the Author’s Licensing and Collecting Society to protect and promote the rights of authors. Amélie has a Masters Degree (MSc) in Human and Development Geography, which she studied at the University of Amsterdam (UvA) and the University College of London (UCL). Carolin Ehrensperger is a Research Analyst at SEED's hosting partner adelphi research. She has supported SEED since 2014 and is involved with the coordination and implementation of the SEED Awards and the SEED Capacity Building. At adelphi research she works on international projects in the area of sustainability entrepreneurship, corporate responsibility and inclusive business models. Before joining adelphi, Carolin has gained experience in a variety of organisations, such as the International Institute for Sustainable Development (IISD), CUTS International Geneva, the Munich Re Foundation, the Kiel Institute for the World Economy, and the German Federal Foreign Office, and specifically concentrated on the areas of sustainable development and on the role of the private sector. Carolin studied economics at the Ludwig-Maximilians-Universität München, Germany, and the Universitetet i Oslo, Norway. She also holds a Masters in International Affairs focusing on sustainable development from the Graduate Institute of International and Development Studies, Geneva, Switzerland. 4/10/15. “How the business of bees contributes to sustainable development” [https://www.seed.uno/blog/articles/1702-how-the-business-of-bees-contributes-to-sustainable-development.html Accessed 7/6/18](https://www.seed.uno/blog/articles/1702-how-the-business-of-bees-contributes-to-sustainable-development.html%20Accessed%207/6/18) //WR-NCP

Bees play a vital part in our natural ecosystems as they are responsible for the pollination of many fruit, nuts, vegetables and other species. For one thing, 100 crop species provide 90% of food worldwide and of those 71 species are pollinated by bees. Extremely high mortality rates of bees in Europe, America and Asia however are putting the balance at risk. For instance, each decade between 1-10% of the world’s biodiversity is lost, one of the factors being the decreasing bee population. (UNEP) Africa is the only continent where the bee population remains stable and unaffected from emerging diseases. Yet, most African countries still import the majority of their honey for their domestic market. So why is the supply so low in Africa? Lack of knowledge about sustainable beekeeping methods, low honey yields, complicated market access for beekeepers and over-exaggerated export regulations hinder the honey bucket from overflowing. (FIBL) Creating sustainable practices in Africa Training 2720Currently most African honey comes from ‘honey hunting’ rather than beekeeping. Trees with bee nests are either cut down or fire and smoke are used to get rid of the bees before the honey is harvested. Both methods destroy the entire colony, and smoking out bees can lead to wild fires. (FAO) In addition, the honey is generally boiled for conservation; which results in the loss of its nutritious value. Nevertheless, harvesting of honey can be turned into a sustainable business with fairly few resources: with the right knowledge, skills and tools beehives can generally be made from local resources; land ownership is not essential, as the hives only take up little space; and bees do not need to be fed as they collect nectar and pollen from the surrounding areas. At the same time, there is an increasing awareness that beekeeping should be centred around the needs of the bees, using indigenous bees and techniques appropriate for each location and without the use of harmful pesticides in order to achieve truly sustainable practices. Training is key to success Unsurprisingly, smallholder farmers are generally keen to take up beekeeping as it requires few resources and has the potential to provide a stable source of income. However, what is needed for success is knowledge on the making of beehives, on locations to set them up, and on harvesting methods. Two 2014 SEED Winners, which are realising the potential of beekeeping for sustainable development, have therefore made training a key component of their business models. Honey Products Shop Display Honey Products Industries, a start-up founded in 2011 in Malawi, trains young people to own and operate business outlets located in specific geographical locations via a franchise model. These outlet managers provide beekeeping equipment and training to local smallholder farmers. The raw honey is collected, tested for quality and purchased by the outlets. The honey is then transported to the factory for processing, where it is labelled and finally distributed to community stores’ shelves. In the remote community of Mutondu in northern Mozambique Pro-Sofala Verde enables families from this community to become beekeepers, with so far 31 community members and their families trained. Local beekeepers act as ‘honey mentors’ and provide expert advice on bee maintenance and hygienic harvesting techniques. Pro-Sofala Verde buys the high grade honey from the community at above market prices, which is then processed, packaged and marketed. Reaching Triple Bottom Line (TBL) impacts Environmental impacts: In both cases, the SEED Winners are contributing to the conservation of biodiversity by preserving and even increasing the bee population. The activities further contribute to natural resource conservation as trees are no longer felt or burned for honey hunting. Moreover, communities are sensitised to the value of nature. Economic impacts: Beekeeping also provides a sustainable source of income, in areas where often few income opportunities exist. In the case of Honey Product Industries not only are income opportunities generated for smallholder farmers, but also to young entrepreneurs, who are trained to run their outlets in remote locations.

#### Food shortages cause nuclear world war 3

FDI 12, Future Directions International, a Research institute providing strategic analysis of Australia’s global interests; citing Lindsay Falvery, PhD in Agricultural Science and former Professor at the University of Melbourne’s Institute of Land and Environment, “Food and Water Insecurity: International Conflict Triggers & Potential Conflict Points,” http://www.futuredirections.org.au/workshop-papers/537-international-conflict-triggers-and-potential-conflict-points-resulting-from-food-and-water-insecurity.html

There is a growing appreciation that the conflicts in the next century will most likely be fought over a lack of resources.¶ Yet, in a sense, this is not new. Researchers point to the French and Russian revolutions as conflicts induced by a lack of food. More recently, Germany’s World War Two efforts are said to have been inspired, at least in part, by its perceived need to gain access to more food. Yet the general sense among those that attended FDI’s recent workshops, was that the scale of the problem in the future could be significantly greater as a result of population pressures, changing weather, urbanisation, migration, loss of arable land and other farm inputs, and increased affluence in the developing world.¶ In his book, Small Farmers Secure Food, Lindsay Falvey, a participant in FDI’s March 2012 workshop on the issue of food and conflict, clearly expresses the problem and why countries across the globe are starting to take note. .¶ He writes (p.36), “…if people are hungry, especially in cities, the state is not stable – riots, violence, breakdown of law and order and migration result.”¶ “Hunger feeds anarchy.”¶ This view is also shared by Julian Cribb, who in his book, The Coming Famine, writes that if “large regions of the world run short of food, land or water in the decades that lie ahead, then wholesale, bloody wars are liable to follow.” ¶ He continues: “An increasingly credible scenario for World War 3 is not so much a confrontation of super powers and their allies, as a festering, self-perpetuating chain of resource conflicts.” He also says: “The wars of the 21st Century are less likely to be global conflicts with sharply defined sides and huge armies, than a scrappy mass of failed states, rebellions, civil strife, insurgencies, terrorism and genocides, sparked by bloody competition over dwindling resources.”¶ As another workshop participant put it, people do not go to war to kill; they go to war over resources, either to protect or to gain the resources for themselves.¶ Another observed that hunger results in passivity not conflict. Conflict is over resources, not because people are going hungry.¶ A study by the International Peace Research Institute indicates that where food security is an issue, it is more likely to result in some form of conflict. Darfur, Rwanda, Eritrea and the Balkans experienced such wars. Governments, especially in developed countries, are increasingly aware of this phenomenon.¶ The UK Ministry of Defence, the CIA, the US Center for Strategic and International Studies and the Oslo Peace Research Institute, all identify famine as a potential trigger for conflicts and possibly even nuclear war.

## Nuke War = Extinction

#### Nuclear war causes extinction---overwhelming global scientific consensus

-- Even small nuke wars

-- Beats their Toon/Robock indicts---those studies were themselves studied and validated

-- EMPs and reactor meltdowns are a distinct warrant

-- De-escalation and primacy are wrong

Steven Starr 14, the Senior Scientist for Physicians for Social Responsibility and Director of the Clinical Laboratory Science Program at the University of Missouri, 5/30/14, “The Lethality of Nuclear Weapons,” http://www.paulcraigroberts.org/2014/05/30/lethality-nuclear-weapons/

Nuclear war has no winner. Beginning in 2006, several of the world’s leading climatologists (at Rutgers, UCLA, John Hopkins University, and the University of Colorado-Boulder) published a series of studies that evaluated the long-term environmental consequences of a nuclear war, including baseline scenarios fought with merely 1% of the explosive power in the US and/or Russian launch-ready nuclear arsenals. They concluded that the consequences of even a “small” nuclear war would include catastrophic disruptions of global climate[i] and massive destruction of Earth’s protective ozone layer[ii]. These and more recent studies predict that global agriculture would be so negatively affected by such a war, a global famine would result, which would cause up to 2 billion people to starve to death. [iii]

These peer-reviewed studies---which were analyzed by the best scientists in the world and found to be without error---also predict that a war fought with less than half of US or Russian strategic nuclear weapons would destroy the human race.[iv] In other words, a US-Russian nuclear war would create such extreme long-term damage to the global environment that it would leave the Earth uninhabitable for humans and most animal forms of life.

A recent article in the Bulletin of the Atomic Scientists, “Self-assured destruction: The climate impacts of nuclear war”,[v] begins by stating:

“A nuclear war between Russia and the United States, even after the arsenal reductions planned under New START, could produce a nuclear winter. Hence, an attack by either side could be suicidal, resulting in self-assured destruction.”

In 2009, I wrote an article[vi] for the International Commission on Nuclear Non-proliferation and Disarmament that summarizes the findings of these studies. It explains that nuclear firestorms would produce millions of tons of smoke, which would rise above cloud level and form a global stratospheric smoke layer that would rapidly encircle the Earth. The smoke layer would remain for at least a decade, and it would act to destroy the protective ozone layer (vastly increasing the UV-B reaching Earth[vii]) as well as block warming sunlight, thus creating Ice Age weather conditions that would last 10 years or longer.

Following a US-Russian nuclear war, temperatures in the central US and Eurasia would fall below freezing every day for one to three years; the intense cold would completely eliminate growing seasons for a decade or longer. No crops could be grown, leading to a famine that would kill most humans and large animal populations.

Electromagnetic pulse from high-altitude nuclear detonations would destroy the integrated circuits in all modern electronic devices[viii], including those in commercial nuclear power plants. Every nuclear reactor would almost instantly meltdown; every nuclear spent fuel pool (which contain many times more radioactivity than found in the reactors) would boil-off, releasing vast amounts of long-lived radioactivity. The fallout would make most of the US and Europe uninhabitable. Of course, the survivors of the nuclear war would be starving to death anyway.

Once nuclear weapons were introduced into a US-Russian conflict, there would be little chance that a nuclear holocaust could be avoided. Theories of “limited nuclear war” and “nuclear de-escalation” are unrealistic.[ix] In 2002 the Bush administration modified US strategic doctrine from a retaliatory role to permit preemptive nuclear attack; in 2010, the Obama administration made only incremental and miniscule changes to this doctrine, leaving it essentially unchanged. Furthermore, Counterforce doctrinex---used by both the US and Russian military---emphasizes the need for preemptive strikes once nuclear war begins Both sides would be under immense pressure to launch a preemptive nuclear first-strike once military hostilities had commenced, especially if nuclear weapons had already been used on the battlefield.

Both the US and Russia each have 400 to 500 launch-ready ballistic missiles armed with a total of at least 1800 strategic nuclear warheads,[xi] which can be launched with only a few minutes warning.[xii] Both the US and Russian Presidents are accompanied 24/7 by military officers carrying a “nuclear briefcase”, which allows them to transmit the permission order to launch in a matter of seconds.

Yet top political leaders and policymakers of both the US and Russia seem to be unaware that their launch-ready nuclear weapons represent a self-destruct mechanism for the human race. For example, in 2010, I was able to publicly question the chief negotiators of the New START treaty, Russian Ambassador Anatoly Antonov and (then) US Assistant Secretary of State, Rose Gottemoeller, during their joint briefing at the UN (during the Non-Proliferation Treaty Review Conference). I asked them if they were familiar with the recent peer-reviewed studies that predicted the detonation of less than 1% of the explosive power contained in the operational and deployed U.S. and Russian nuclear forces would cause catastrophic changes in the global climate, and that a nuclear war fought with their strategic nuclear weapons would kill most people on Earth. They both answered “no.”

More recently, on April 20, 2014, I asked the same question and received the same answer from the US officials sent to brief representatives of the NGOS at the Non-Proliferation Treaty Preparatory Committee meeting at the UN. None of the US officials at the briefing were aware of the studies. Those present included top officials of the National Security Council.

It is frightening that President Obama and his administration appear unaware that the world’s leading scientists have for years predicted that a nuclear war fought with the US and/or Russian strategic nuclear arsenal means the end of human history. Do they not know of the existential threat these arsenals pose to the human race . . . or do they choose to remain silent because this fact doesn’t fit into their official narratives? We hear only about terrorist threats that could destroy a city with an atomic bomb, while the threat of human extinction from nuclear war is never mentioned---even when the US and Russia are each running huge nuclear war games in preparation for a US-Russian war.

Even more frightening is the fact that the neocons running US foreign policy believe that the US has “nuclear primacy” over Russia; that is, the US could successfully launch a nuclear sneak attack against Russian (and Chinese) nuclear forces and completely destroy them. This theory was articulated in 2006 in “The Rise of U.S. Nuclear Primacy”, which was published in Foreign Affairs by the Council on Foreign Relations.[xiii] By concluding that the Russians and Chinese would be unable to retaliate, or if some small part of their forces remained, would not risk a second US attack by retaliating, the article invites nuclear war.

Colonel Valery Yarynich (who was in charge of security of the Soviet/Russian nuclear command and control systems for 7 years) asked me to help him write a rebuttal, which was titled “Nuclear Primacy is a Fallacy”.[xiv] Colonel Yarynich, who was on the Soviet General Staff and did war planning for the USSR, concluded that the “Primacy” article used faulty methodology and erroneous assumptions, thus invalidating its conclusions. My contribution lay in my knowledge of the recently published (in 2006) studies, which predicted even a “successful” nuclear first-strike, which destroyed 100% of the opposing sides nuclear weapons, would cause the citizens of the side that “won” the nuclear war to perish from nuclear famine, just as would the rest of humanity.

Although the nuclear primacy article created quite a backlash in Russia, leading to a public speech by the Russian Foreign Minister, the story was essentially not covered in the US press. We were unable to get our rebuttal published by US media. The question remains as to whether the US nuclear primacy asserted in the article has been accepted as a fact by the US political and military establishment. Such acceptance would explain the recklessness of US policy toward Russia and China.

Thus we find ourselves in a situation in which those who are in charge of our nuclear arsenal seem not to understand that they can end human history if they choose to push the button. Most of the American public also remains completely unaware of this deadly threat. The uninformed are leading the uninformed toward the abyss of extinction.

US public schools have not taught students about nuclear weapons for more than 20 years. The last time nuclear war was discussed or debated in a US Presidential election was sometime in the last century. Thus, most people do not know that a single strategic nuclear weapon can easily ignite a massive firestorm over 100 square miles, and that the US and Russia each have many thousands of these weapons ready for immediate use.

Meanwhile, neoconservative ideology has kept the US at war during the entire 21st century. It has led to the expansion of US/NATO forces to the very borders of Russia, a huge mistake that has consequently revived the Cold War. A hallmark of neconservatism is that America is the “indispensable nation”, as evidenced by the neoconservative belief in “American exceptionalism”, which essentially asserts that Americans are superior to all other peoples, that American interests and values should reign supreme in the world.

At his West Point speech on May 28, President Obama said, “I believe in American exceptionalism with every fiber of my being.” Obama stated his bottom line is that “America must always lead on the world stage,” and “the backbone of that leadership always will be the military.” American exceptionalism based on might, not diplomacy, on hard power, not soft, is precisely the hubris and arrogance that could lead to the termination of human life. Washington’s determination to prevent the rise of Russia and China, as set out in the Brzezinski and Wolfowitz doctrines, is a recipe for nuclear war.

The need is dire for the president of the US, Russia, or China to state in a highly public forum that the existence of nuclear weapons creates the possibility of their use and that their use in war would likely mean human extinction. As nuclear war has no winners, the weapons should be banned and destroyed before they destroy all of us.

#### Nuclear war causes extinction and independent epidemic spread

Andrea Germanos 13, 12/10, “New report issues 'red flag about the threat to humanity' posed by nuclear weapons; calls for global disarmament,” https://www.commondreams.org/headline/2013/12/10-2

A war using even a small percentage of the world's nuclear weapons threatens the lives of two billion people, a new report warns. The findings in the report issued by International Physicians for Prevention of Nuclear War (IPPNW) and Physicians for Social Responsibility (PSR) are based on studies by climate scientists that show how nuclear war would alter the climate and agriculture, thereby threatening one quarter of the world's population with famine. Nuclear Famine: Two Billion People at Risk? offers an updated edition to the groups' April of 2012 report, which the groups say "may have seriously underestimated the consequences of a limited nuclear war." "A nuclear war using only a fraction of existing arsenals would produce massive casualties on a global scale—far more than we had previously believed," Dr. Ira Helfand, the report’s author and IPPNW co-president, said in a statement. As their previous report showed, years after even a limited nuclear war, production of corn in the U.S. and China's middle season rice production would severely decline, and fears over dwindling food supplies would lead to hoarding and increases in food prices, creating further food insecurity for those already reliant on food imports. The updated report adds that Chinese winter wheat production would plummet if such a war broke out. Based on information from new studies combining reductions in wheat, corn and rice, this new edition doubles the number of people they expect to be threatened by nuclear-war induced famine to over two billion. "The prospect of a decade of widespread hunger and intense social and economic instability in the world’s largest country has immense implications for the entire global community, as does the possibility that the huge declines in Chinese wheat production will be matched by similar declines in other wheat producing countries," Helfand stated. The crops would be impacted, the report explains, citing previous studies, because of the black carbon particles that would be released, causing widespread changes like cooling temperatures, decreased precipitation and decline in solar radiation. In this scenario of famine, epidemics of infectious diseases would be likely, the report states, and could lead to armed conflict. From the report: Within nations where famine is widespread, there would almost certainly be food riots, and competition for limited food resources might well exacerbate ethnic and regional animosities. Among nations, armed conflict would be a very real possibility as states dependent on imports attempted to maintain access to food supplies. While a limited nuclear war would bring dire circumstances, the impacts if the world's biggest nuclear arms holders were involved would be even worse. "With a large war between the United States and Russia, we are talking about the possible —not certain, but possible—extinction of the human race," Helfand told Agence-France Presse.

#### Yes extinction---consensus of recent studies---Robock indicts don’t apply

Tim Farnsworth 11, editor and a contributor for Arms Control Now, “Thinking Existentially about the Worldwide Threat”, 2/18/11, http://armscontrolnow.org/2011/02/18/thinking-existentially-about-the-worldwide-threat/

A panel of scientists provided a useful update today on the latest thinking about the climatic consequences of nuclear weapons use. The presentation provided a grim reminder that the nuclear Sword of Damocles still hangs over all nations of the earth, nuclear and non-nuclear powers alike---notwithstanding the significant achievement of New START ratification by the United States and Russia.¶ At the annual meeting in Washington of the American Association for the Advancement of Science, Georgiy Stenchikov (King Abdullah University of Science and Technology), Luke Oman (NASA Goddard Space Flight Center), and Michael Mills (National Center for Atmospheric Research) **shared results** of their research, benefiting from **extensive studies** of related phenomenon in recent decades, such as massive forest fires, volcanic eruptions, and oil well fires. **Unlike the “nuclear winter” studies of the 1980s**, which focused on the impact of an all-out US-Soviet nuclear exchange, the latest research looked at the environment effects of a more **limited nuclear war** between India and Pakistan.¶ The speakers reported on their estimates of the environmental consequences resulting from theoretical detonation of 100 15kt-yield nuclear weapons over Indian and Pakistani cities. In such an exchange, millions of tons of soot in the smoke plumes from urban fires would be lofted into the stratosphere, circulating around the earth within days, but adversely affecting the ozone layer, world temperatures, and precipitation for years.

## [EXT] Pharmaceuticals kill bees

#### Active Ingredients can gang up and kill bees

Richard Lehnert,, 3-19-2014, "How bad things in the environment gang up and kill bees," Good Fruit Grower, https://www.goodfruit.com/how-bad-things-in-the-environment-gang-up-and-kill-bees/

In many ways, honeybees are the canaries in the coal mine, the critters that die first when the air gets bad. For the last several years, people have been in a frenzy over the high mortality of honeybee hives. Not only are they concerned about bees, but they’re concerned that pollination of food crops will be threatened. But it’s not one thing in the environment—like methane in the coal mine—that threatens honeybees. It’s a combination of things that don’t just add together, but multiply. One plus one doesn’t always equal two; it may equal 2,000. That’s called synergism. Researchers at Pennsylvania State University, including entomologists Drs. Jim and Maryann Frazier and Chris Mullin, have found that, in combination, four commonly used pesticides kill honeybee larvae in the hive. More concerning is that one of these is chlorothalonil, a fungicide commonly used in fruit and vegetable production. And even more concerning, in Mullin’s view, is that a supposedly inert chemical—N-methyl-2-pyrrolidone (NMP), commonly used in formulating pesticides—is itself highly toxic to bee larvae. In a telephone interview with Good Fruit Grower, Mullin said that so-called inert ingredients are widely used, don’t have to be named on pesticide labels used in the formulation, and are often trade secrets that even government agencies don’t disclose. “There are about a thousand active ingredients that are pesticides,” he said. “There are over 2,000 substances that are classified inert.” These can be used in formulating everything from personal care products to pharmaceutical drugs to pesticides. He hopes the Penn State research will make the U.S. Environmental Protection Agency more proactive in looking at inert ingredients and the effects of mixtures of pesticides. Some of the silicone surfactants now being used in pesticide spray tank mixes greatly increase penetration, changing the lethality of the pesticides. It’s a two-edged sword, since a surfactant can reduce the amount of active ingredient that needs to be used, which is usually considered a positive thing. Bee-havior The day-to-day behavior of honeybees makes them—and the brood they feed—vulnerable to toxic materials. They fly through air, picking up particles on the hairs of their body—then land and sweep up pollen to carry back to the hive to provide the protein that bee larvae need to develop. What gets into those pollen baskets on their legs is a mixture of things, since pesticides can be in or on the pollen as well as the flowers they visit. The team’s previous research showed that forager bees bring back to the hive an average of six different pesticides on the pollen they collect. Nurse bees use this pollen to make beebread, which they then feed to honeybee larvae. Change needed at EPA The team’s research was published in January in the online science journal PLoS ONE and further publicized in a Penn State University article. “We found that four of the pesticides most commonly found in beehives kill bee larvae,” Jim Frazier reported in the article. “We also found that the negative effects of these pesticides are sometimes greater when the pesticides occur in combinations within the hive. Since pesticide safety is judged almost entirely on adult honeybee sensitivity to individual pesticides and also does not consider mixtures of pesticides, the risk ­assessment process that the Environmental Protection Agency uses should be changed.” Interestingly, however, two of the pesticides studied (fluvalinate and coumaphos) are not crop protection chemicals, but miticides placed in the hives by beekeepers themselves to control Varroa mites. The mites, which came to the United States about 30 years ago, have had an overwhelmingly negative impact on bees and beekeepers. They feed on and kill bees directly or through the viruses and diseases they carry. They are now thought to play a key role in colony collapse disorder. The other two pesticides in the study were chloro­thal­onil (sold under many brand names including Bravo) and chlorpyrifos (sold under many names including Lorsban). Chlorothalonil has been widely used for 50 years because it is broadly effective and diseases do not develop resistance to it. It is this multisite action that probably makes it more toxic to bees, Mullin said. Among the four pesticides, honeybee larvae were most sensitive to chlorothalonil. Pesticides may directly poison honeybee larvae or they may indirectly kill them by disrupting the fungi that are essential for nurse bees to process pollen into ­beebread, Mullin stated in the article. “Chronic exposure to pesticides during the early life stage of honeybees may contribute to their inadequate nutrition or direct poisoning with a resulting impact on the survival and development of the entire bee brood,” he said. Mullin’s advice to growers is to avoid applying ­fungicides during bloom when bees are foraging. Beekeepers are also attempting to shift away from the miticides they are now using to amitraz (sold as Apivar), a miticide that has, so far, not shown synergistic effects with other chemicals. It has been approved for use in some states under Section 18 permits from the Environmental Protection Agency.

#### Antidepressants kill Birds

Press Association, 10-21-2014, "Prozac may be harming bird populations, study suggests," Guardian, <https://www.theguardian.com/environment/2014/oct/21/prozac-may-be-harming-bird-populations-study-suggests>

Increasing consumption of antidepressant drugs may be helping humans but damaging the health of the bird population, according to a new study. An expert who has looked at the effects of passive Prozac-taking on starlings says it has changed not only their feeding habits but also their interest in mating. Dr Kathryn Arnold, an ecologist from the University of York, said: “Females who’d been on it were not interested in the male birds we introduced them to. They sat in the middle of the cage, not interested at all.” Arnold’s research, which is investigated on BBC2’s Autumnwatch, took her to sewage works where birds flock to feed. Advertisement “They’re a really great place to watch birds because they’re attracted by all the worms and invertebrates that live there,” she told Radio Times. “I started thinking, ‘What about what’s in the sewage?’ If you or I take a headache pill for instance, a high proportion of it ends up being excreted completely unchanged.” She measured the level of Prozac present in earthworms living in sewage. It was tiny, around 3-5% of the average human dosage. She then fed worms containing the same concentration of the drug to 24 captive starlings and monitored their behaviour over six months. The birds began to display side effects similar to those reported by humans prescribed Prozac. Sign up to the Green Light email to get the planet's most important stories Read more “The major finding was a loss of appetite. Compared with the control birds who hadn’t had any Prozac, they ate much less and snacked throughout the day. The problem then is that they’re less likely to survive long, dark winter’s nights.” It was not just food that lost its appeal - the birds’ libido also fell. However, in one significant area, the starlings’ reaction to the drug did not mimic its effect on the human brain - their mood remained unchanged. Arnold said: “Antidepressants reduce anxiety in humans but we can’t ask a bird if it’s anxious; we have to measure it in a behavioural way. We present them with an unfamiliar object and see how they react. If a bird is bold, it’ll carry on feeding, even though there’s something strange in its food bowl. But we found no effect on boldness, which is what we’d expected. “Maybe we were measuring it the wrong way and that wasn’t a particularly stressful task. If we repeated it, we’d use a different method or different novel object. Or it could be that there are enough variations between bird and human brains that Prozac works in a slightly different way.” Autumnwatch presenter Chris Packham said there may be no simple answer. He said: “This change in behaviour could impact negatively on their ecology. We know for instance we’ve lost 50 million starlings in the UK since the 1960s. “Pharmaceuticals could play a part. The next stage of the work is to look at wild starlings to check if they also have chemical residue in their bodies.” Arnold said she was not attacking antidepressants or the waste-disposal industry. “I’m not saying that if you’re depressed, don’t take Prozac. Sewage treatment works are really good sources of food for birds. We’re certainly not saying they should be covered over. “Science needs to deliver better estimates of the environmental risks posed by pharmaceuticals. The effects we’ve measured so far are quite subtle. “These aren’t big die-offs but they could have a negative impact on wildlife. We need to find out whether they are. It’s going to get worse so we need to get a handle on it.” Arnold recently edited a special issue of the journal the journal Philosophical Transactions of the Royal Society B on the effect of pharmaceutical contamination on wildlife.

#### Medicine hurts environment

Damian Carrington 14, 10-12-2014, "Drugs flushed into the environment could be cause of wildlife decline," Guardian, https://www.theguardian.com/environment/2014/oct/13/drugs-flushed-into-the-environment-could-be-cause-of-wildlife-decline

Potent pharmaceuticals flushed into the environment via human and animal sewage could be a hidden cause of the global wildlife crisis, according to new research. The scientists warn that worldwide use of the drugs, which are designed to be biologically active at low concentrations, is rising rapidly but that too little is currently known about their effect on the natural world. Studies of the effect of pharmaceutical contamination on wildlife are rare but new work published on Monday reveals that an anti-depressant reduces feeding in starlings and that a contraceptive drug slashes fish populations in lakes. “With thousands of pharmaceuticals in use globally, they have the potential to have potent effects on wildlife and ecosystems,” said Kathryn Arnold, at the University of York, who edited a special issue of the journal Philosophical Transactions of the Royal Society B. ”Given the many benefits of pharmaceuticals, there is a need for science to deliver better estimates of the environmental risks they pose.” She said: “Given that populations of many species living in human-altered landscapes are declining for reasons that cannot be fully explained, we believe that it is time to explore emerging challenges,” such as pharmaceutical pollution. Research published in September revealed half of the planet’s wild animals had been wiped out in the last 40 years. In freshwater habitats, where drug residues are most commonly found, the research found 75% of fish and amphibians had been lost. A few dramatic examples of wildlife harmed by drug contamination have been discovered previously, including male fish being feminised by the synthetic hormones used in birth-control pills and vultures in India being virtually wiped out by an anti-inflammatory drug given to the cattle on whose carcasses they feed. Inter-sex frogs have also recently been found in urban ponds contaminated with wastewater. Phamarceutical pollution : Rapid Decline in Vultures in India Vultures in India were virtually wiped out by an anti-inflammatory drug given to the cattle on whose carcasses they feed. But because the pharmaceuticals are not designed to kill – unlike pesticides – the damage caused to wildlife can be more subtle. Sign up to the Green Light email to get the planet's most important stories Read more In one of the new studies, Tom Bean at the University of York and colleagues, showed that the common antidepressant fluoxetine, at the low levels expected in the environment, led starlings to feed less often during the key foraging times of sunrise and sunset. “Importantly, fluoxetine is not the only pharmaceutical, or indeed the only antidepressant, to be detected in the environment,” he said. “Mixtures of pharmaceuticals could potentially be more potent.” Another new study, led by Karen Kidd at the University of New Brunswick, showed synthetic oestrogen used in the birth control pill not only wiped out fathead minnows in lakes used for experiments in Ontario, but also seriously disrupted the whole ecosystem. The lakes’ top predator – trout – declined by 23-42%, due to the loss of the minnow and other prey, while insects increased as they were no longer being eaten by the minnows. Amphibians are suffering the hardest in the global biodiversity decline and Cecilia Berg, at Uppsala University, and colleagues reported that a number of hormonally active pharmaceuticals harm reproduction in amphibians at concentrations that occur in natural waters. The most environmentally dangerous drugs are identified in a paper by Anette Küster and Nicole Adler, both at Germany’s Federal Environment Agency. “For human medicinal products, hormones, antibiotics, [painkillers], antidepressants and [anti-cancer drugs] indicated an environmental risk,” they said. For veterinary drugs, hormones, antibiotics and parasiticides were highlighted. Pharmaceuticals can contaminate the environment through discharges from drug factories, as well as through sewage. Professor Joakim Larsson, at the University of Gothenburg, found that drug levels in effluents can even exceed those found in the blood of people taking medication. Larsson cited antibiotic pollution coming from factories in China, India, Pakistan, Korea, Denmark, Norway and Croatia. “Although pollution from manufacturing is less widespread, discharges that promote the development of drug-resistant microorganisms can still have global consequences.” He also documented antidepressant pollution from factories in Switzerland, Israel and Spain and “narcotic opioid” pollution in the US. The use of pharmaceuticals is rising with increases in the human population and the livestock it keeps. Environmental exposure is also rising as sewage is increasingly used to irrigate or fertilise farmland. In the US, for example, about 4m tonnes of dry sewage biosolids are applied to land each year. Sally Gaw, at the University of Canterbury, and colleagues warned that even less is known about the effect of pharmaceutical pollution in the oceans. “This is a critical knowledge gap given the significant increase in coastal human populations around the globe and the growth of coastal megacities, together with the increasing importance of coastal [fisheries] around the world.”

### Warrant

Our Evidence proves that active and inactive ingredients in pharmaceuticals have not only been proved to hurt wildlife but hurts bees directly through sewage and other hum waste. Therefore, more production and use of pharmaceuticals brought about by price controls reducing prices will cause deep harm to bees and other wildlife and their ecosystems.

## [EXT] De-development

#### Economic growth is unsustainable, allowing the status quo to transition now solves but postponing causes extinction---tech fails

Samuel Alexander, 2015. Dr. Samuel Alexander, co-director of the Simplicity Institute, is a lecturer at the Office for Environmental Programs, University of Melbourne, Australia, teaching a course called ‘Consumerism and the Growth Economy: Interdisciplinary Perspectives’ into the Masters of Environment. He is also a Research Fellow with the Melbourne Sustainable Society Institute. 8/11/15. *Sufficiency Economy: Enough, for Everyone, Forever.* [http://simplicitycollective.com/introduction-to-sufficiency-economy Accessed 7/5/18](http://simplicitycollective.com/introduction-to-sufficiency-economy%20Accessed%207/5/18) //WR-NCP

INTRODUCTION What is to be done? This is surely one of the central questions for those of us who are animated by what Charles Eisenstein calls ‘the more beautiful world our hearts know is possible’; a central question for those of us with the fire of ecological democracy burning in our eyes. Yet, it is a question that demands engagement with three preliminary questions, the answers to which provide the necessary guidance for effective practical action. First, we must adequately understand the nature and extent of the overlapping crises that confront us today. Secondly, we must envision the alternative world, or matrix of alternative worlds, that would adequately dissolve the current crises and provide the foundations for a flourishing human civilisation into the deep future. And thirdly, having provided an accurate critique and having envisioned an appropriate and effective alternative, we must meditate deeply on the question of strategy – the question of how best to direct our energies and resources if we are to maximise our chances of building the new world we have imagined. Then, and only then, are we in a position to ask ourselves the ultimate question: what is to be done? If that question is asked prematurely, or if it is asked having answered any one of the preliminary questions inadequately, then there is a great risk that one’s action, motivated by the best of intentions, is directed in ways that fail to effectively produce any positive effect and, indeed, may even be counter-productive to the cause. The publication of my two volumes of collected essays – PROSPEROUS DESCENT and SUFFICIENCY ECONOMY – represents an attempt to engage these questions as directly and as clearly as possible. The primary motivation for doing so arises from my concern that much of the literature on ‘sustainable development’ fails to understand the magnitude of our overlapping crises, and for that reason, the envisioned alternatives or solutions widely proposed tend to be fundamentally misconceived. Furthermore, when the critique of the existing world is off target and when the envisioned alternatives are misconceived, it should come as no surprise that the strategies proposed for achieving the stated goals are similarly flawed. If our map is poorly drawn and our compass is broken, we are unlikely to arrive at where we need to go. Is it any wonder humanity seems so lost and directionless? Over the years of writing these essays my ideas and perspectives have naturally evolved in a dialectical relationship with other people’s ideas, and are constantly being refined further as my experience of the ever-changing world is digested and reflected upon. The human condition is such that the sands of thought forever shift beneath our feet. Nevertheless, having now spent the best part of a decade engaging the questions posed above, I notice that the evidential ground upon which I stand is firming up, providing me with confidence that the position I defend – radical though it may seem – is accurate, even if there may be matters of detail that will always be open to revision or refinement. In this introduction I would like to state some of the fundamental tenets which shape the following essays, in the hope that this will guide the interpretation of those essays, especially at those times when these central ideas lie beneath the surface of a more focused discussion. As I am writing this introduction after having written the essays, there is also the luxury of having the full benefit of what I have learned throughout the writing process. Here are twelve defining theses that shape my work: 1. Pursuing limitless growth on a finite planet is a recipe for ecological and humanitarian catastrophe. Despite the controversy that still surrounds the ‘limits to growth’ perspective, there is something strikingly obvious about the idea that if human population keeps growing, if our resource and energy demands on the natural environment continue expanding, and if our streams of waste and pollution keep growing, then eventually we will undermine the ecological foundations of our civilisation so violently that nature will fight back and bring things into balance. Let us face the fact, too, that ‘bringing things into balance’ is a euphemism for mass population die-off, signifying a prospective tragedy of unspeakable proportions. So the question is not so much whether there are limits to growth – of course there are limits to growth! – but rather when those limits will begin to impose themselves on our current ways of living and force us to live differently. It would be far better for people and planet that we anticipate these limits and begin working toward a post-growth economy now. Needless to say, this will not be easy. We have developed two centuries of industrial, growth-orientated momentum that will make it incredibly difficult to consciously redirect the economic trajectory so fundamentally. But transitioning ‘beyond growth’ is a transformation that is coming, one way or another. Better it be by design than disaster. 2. ‘Green growth’ is a dangerous myth that entrenches the status quo. When the limits to growth are raised in objection to the growth model of progress, many people seem comforted by the fantasy that science and technology will save the day. Current forms of growth may have ecological limits, these people acknowledge, but they then insist that the global economy can and should keep growing forever, if only we learn how to produce and consume more efficiently. This is nice in theory, perhaps, but it is biophysically naïve. It is of the utmost importance, of course, that we use the best of our technological knowledge to help us achieve a sustainable way of life through efficiency improvements. It would be foolish to argue otherwise. But efficiency alone cannot ‘decouple’ economic growth from ecological impact sufficiently to produce a sustainable way of life. The extent of decoupling required is simply too great. To be effective, the drive for efficiency must be shaped and limited by an ethics of sufficiency. That is to say, our aim should not be to do ‘more with less’ (which is the flawed paradigm of green growth), but to do ‘enough with less’ (which is the paradigm of sufficiency). 3. ‘Degrowth’ (i.e., planned contraction of resource and energy demands) is necessary in the developed nations in order to move toward a just and sustainable economy that operates within the sustainable carrying capacity of the planet. When the extent of ecological overshoot is understood, and bearing in mind the fact that ecological room must be left for poorest nations to attain a dignified existence, there is no escaping the fact that degrowth is required in the developed – or rather overdeveloped – regions of the world. This is not a popular thesis, but it does reflect a biophysical reality. 4. Addressing poverty within a degrowth framework implies a redistribution of wealth and power on a much more egalitarian basis. Within the growth model it is assumed that poverty will be eliminated through continued growth of the global economy via some ‘trickle down’ effect. This is an ecologically unsupportable pathway to poverty elimination, because it relies on continued growth on an already overburdened planet. Once it is recognised that growth cannot solve the problem of poverty and in fact threatens to exacerbate it through climate change, continued ecological degradation, or economic collapse, it becomes clear that the only coherent pathway beyond poverty lies in a more egalitarian distribution of wealth and power within a degrowth model of progress. This is not the place to argue how that could be achieved – there are many options. The present point is simply to acknowledge that it is a necessary feature of any transition to a just and sustainable world. 5. Degrowth implies radically reduced energy and resource requirements compared to overdeveloped nations. Among other things, degrowth means giving up affluent, consumer lifestyles and embracing ‘simpler ways’ of living that provide for mostly local needs using mostly local resources. This is an implication of the environmental predicament that few dare to acknowledge, since most people seem resistant to giving up the comforts and conveniences of consumer affluence. But given the extent of ecological overshoot, there is no way that the consumer way of life could be universalised. Consumerism was an experiment that failed. It led civilisation down a dead end. We are now being called to reimagine the good life beyond consumer culture and explore new conceptions of progress and prosperity. This does not necessarily mean hardship. It means focusing on what is sufficient to live well – and pursuing that goal with all the wisdom, creativity, and compassion we can muster. 6. It is not enough merely to live more simply within existing structures and systems. While challenging ourselves to live more simply is necessary, the even greater challenge is to begin building new systems and structures that support and encourage ‘simpler ways’ of life. We cannot wait for governments to do this for us. First and foremost, we must organise and network at the grassroots level and begin building the new world within the shell of the world.

#### Climate change causes extinction

Zach Ruiter 17, environmental reporter for Now Toronto and Torontoist, citing 15, 364 scientists from 184 countries in ‘World Scientists’ Warning to Humanity: A Second Notice’, 11-22-17, “Are we headed for near-term human extinction?” https://nowtoronto.com/news/are-we-headed-for-near-term-human-extinction/

A “warning to humanity” raising the spectre “of potentially catastrophic climate change... from burning fossil fuels, deforestation and agricultural production – particularly from farming ruminants for meat consumption,” was published in the journal BioScience last week.

More than 15,000 scientists from 184 countries endorsed the caution, which comes on the 25th anniversary of a letter released by the Union of Concerned Scientists in 1992, advising that “a great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided.”

A quarter century on, what gets lost in the dichotomy between climate change believers and deniers is that inaction and avoidance in our daily lives are forms of denial, too.

And what most of us are collectively denying is the mounting evidence that points to a worst-case scenario unfolding of near-term human extinction.

Exponential climate change

In 2015, 195 countries signed the Paris Climate Agreement to limit the rise in global temperature to below 2 degrees Celsius to avoid dangerous climate change. But none of the major industrialized countries that signed the agreement are currently on track to meet the non-binding targets. The Trump administration has indicated the United States will withdraw from the agreement entirely.

In July, a study in the peer-reviewed journal, Proceedings Of The National Academy Of Sciences Of The United States Of America, claimed “biological annihilation via the ongoing sixth mass extinction” is underway. And that “all signs point to ever more powerful assaults on biodiversity in the next two decades, painting a dismal picture of the future of life, including human life,” the study states.

According to scientists, the majority of previous mass extinctions in the geologic record were characterized by abrupt warming between 6 to 7 degrees Celsius. As recently as 2009, British government scientists warned of a possible catastrophic 4 degrees Celsius global temperature increase by 2060.

As Howard Lee wrote in the Guardian in August, “Geologically fast build-up of greenhouse gas linked to warming, rising sea-levels, widespread oxygen-starved ocean dead zones and ocean acidification are fairly consistent across the mass extinction events, and those same symptoms are happening today as a result of human-driven climate change.”

Runaway climate change is non-linear. Shifts can be exponential, abrupt and massive due to climate change “feedbacks,” which can amplify and diminish the effects of climate change. Here are five you need to know about:

1. Climate lag

Temperature increases lag by about a decade, according to NASA’s Earth Observatory. “Just as a speeding car can take some time to stop after the driver hits the brakes, the earth’s climate systems may take a while to reflect the change in its energy balance.”

According to a NASA-led study released in July 2016, “Almost one-fifth of the global warming that has occurred in the past 150 years has been missed by historical records due to quirks in how temperatures were recorded.”

Adding the climate lag to the current level of global temperature increase would take us past the 2-degree Paris Agreement climate target within a decade.

2. Ice-free Arctic

Dr. Peter Wadhams of the Polar Ocean Physics Group at Cambridge University told The Independent more than a year ago that the central part of the Arctic and the North Pole could be ice-free within one to two years.

Not only will melting Arctic sea ice raise global sea levels, it will also allow the earth to absorb more heat from the sun because ice reflects the sun’s rays while blue open water absorbs it.

One study in the Proceedings Of The National Academy Of Sciences Of The United States Of America estimates the extra heat absorbed by the dark waters of the Arctic in summer would add the equivalent of another 25 per cent to global greenhouse gas emissions.

3. The 50 gigaton methane “burp”

Dr. Natalia Shakhova, of the University of Alaska Fairbanks’ International Arctic Research Center has warned that a 50-gigaton burp, or “pulse,” of methane from thawing Arctic permafrost beneath the East Siberian Arctic Shelf is “highly possible at any time.”

Methane is a greenhouse gas much more potent than carbon dioxide. A 50 gigaton burp would be the equivalent of roughly two-thirds of the total carbon dioxide released since the beginning of the industrial era.

4. Accelerated ocean acidification

The world’s oceans are carbon sinks that sequester a third of the carbon dioxide released into the atmosphere. The carbon dioxide emitted in addition to that which is produced naturally has changed the chemistry of seawater. The carbon in the oceans converts into carbonic acid, which lowers pH levels and makes the water acidic.

As of 2010, the global population of phytoplankton, the microscopic organisms that form the basis of the ocean’s food web, has fallen by about 40 per cent since 1950. Phytoplankton also absorb carbon dioxide and produce half of the world’s oxygen output.

The accelerating loss of ocean biodiversity and continued overfishing may result in a collapse of all species of wild seafood by 2048, according to a 2006 study published in the journal Science.

5. From global warming to global dimming

The Canadian government recently announced plans to phase out coal-fired electricity generation by 2030. But at the same time as warming the planet, pollution from coal power plants, airplanes and other sources of industrial soot, aerosols and sulfates are artificially cooling the planet by filling the atmosphere with reflective particles, a process known as global dimming.

Airplanes, for example, release condensation trails (or contrails) that form cloud cover that reflects the sun. The effects of global dimming are best evidenced by a 2 degree Celsius temperature increase in North America after all commercial flights were grounded for three days following the attacks of 9/11.

The take-away

Out of control climate change means feedback mechanisms may accelerate beyond any capacity of human control. The occurrences discussed in this article are five of some 60 known weather-related phenomenon, which can lead to what climate scientist James Hansen has termed the “Venus Syndrome,” where oceans would boil and the surface temperature of earth could reach 462 degrees Celsius. Along the way humans could expect to die in resource wars, starvation due to food systems collapse or lethal heat exposure.

Given all that remains unknown and what is at stake with climate change, is it irresponsible to rule out the possibility of human extinction in the coming decades or sooner?

#### Economic decline prevents war

Christopher Clary, 2015. PhD in political science from MIT, MA in national security affairs, postdoctoral fellow, Watson Institute for International Studies, Brown University. Massachusetts Institute of Technology Political Science Department. 4/30/15. “Economic Stress and International Cooperation: Evidence from International Rivalries” [http://dx.doi.org/10.2139/ssrn.2597712 pp. 4-12 Accessed 7/5/18](http://dx.doi.org/10.2139/ssrn.2597712%20pp.%204-12%20Accessed%207/5/18) //WR-NCP

Why Might Economic Crisis Cause Rivalry Termination? Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to austerity pressures, which in turn incent leaders to search for ways to cut defense expenditures. (2) Economic crises also encourage strategic reassessment, so that leaders can argue to their peers and their publics that defense spending can be arrested without endangering the state. This can lead to threat deflation, where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, economic crises provoke elites to consider threat prioritization, a process that is postponed during periods of economic normalcy. (4) Economic crises increase the political and economic benefit from international economic cooperation. Leaders seek foreign aid, enhanced trade, and increased investment from abroad during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. (5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views. Collectively, these mechanisms make it much more likely that a leader will prefer conciliatory policies compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice. Economic Crisis Leads to Austerity Economic crises generate pressure for austerity. Government revenues are a function of national economic production, so that when production diminishes through recession, revenues available for expenditure also diminish. Planning almost invariably assumes growth rather than contraction, so the deviation in available revenues compared to the planned expenditure can be sizable. When growth slowdowns are prolonged, the cumulative departure from planning targets can grow even further, even if no single quarter meets the technical definition of recession. Pressures for austerity are felt most acutely in governments that face difficulty borrowing to finance deficit expenditures. This is especially the case when this borrowing relies on international sources of credit. Even for states that can borrow, however, intellectual attachment to balanced budgets as a means to restore confidence—a belief in what is sometimes called “expansionary austerity”—generates incentives to curtail expenditure. These incentives to cut occur precisely when populations are experiencing economic hardship, making reductions especially painful that target poverty alleviation, welfare programs, or economic subsidies. As a result, mass and elite constituents strongly resist such cuts. Welfare programs and other forms of public spending may be especially susceptible to a policy “ratchet effect,” where people are very reluctant to forego benefits once they have become accustomed to their availability.6 As Paul Pierson has argued, “The politics [of welfare state] retrenchment is typically treacherous, because it imposes tangible losses on concentrated groups of voters in return for diffuse and uncertain gains.”7 Austerity Leads to Cutbacks in Defense Spending At a minimum, the political costs of pursuing austerity through cutbacks in social and economic expenditures alone make such a path unappealing. In practice, this can spur policymakers to curtail national security spending as a way to balance budgets during periods of economic turmoil. There is often more discretion over defense spending than over other areas in the budget, and it is frequently distantly connected to the welfare of the mass public. Many militaries need foreign arms and foreign ammunition for their militaries, so defense expenditures are doubly costly since they both take up valuable defense budget space while also sending hard currency overseas, rather than constituencies at home. Pursuing defense cuts may also conform to the preferences of the financial sector, which shows a strong aversion to military conflict even if that means policies of appeasement and conciliation.8 During periods of economic expansion, the opportunity costs associated with defense expenditure—the requirement for higher taxes or foregone spending in other areas—are real but acceptable. Economic contraction heightens the opportunity costs by forcing a choice between different types of spending. There is a constituency for defense spending in the armed services, intelligence agencies, and arms industries, but even in militarized economies this constituency tends to be numerically much smaller than those that favor social and economic expenditures over military ones. Defense Cutbacks Encourage Rapprochement An interest in defense cutbacks can lead to conciliatory behavior through two paths. First, the cutbacks themselves serve as a concrete signal to adversaries that the military threat posed by the economically distressed state is declining. This permits the other state to halt that portion of defense spending dedicated to keeping up, breaking the back of ongoing arms races through reciprocated, but non-negotiated moves. Unilateral conventional force reductions were a major element of Gorbachev’s foreign policy in the late 1980s, alongside negotiated strategic arms control, and diplomatic efforts to achieve political understandings with the United States.9 Gorbachev similarly used force reductions in Afghanistan, Mongolia, and the Soviet Far East to signal to China in 1987 that he was serious about political negotiations.10 Elsewhere, non-negotiated, tit-for-tat military redeployments facilitated Argentina-Brazil rapprochement.11 Second, leaders may believe cutbacks are necessary, but would be dangerous in the absence of negotiated improvements with traditional foes. Economic downturns can serve as motivation to pursue arms control or political settlement. During periods of normalcy, such outcomes would be positives, but are viewed as “too hard” by political leaders that move from one urgent problem to the next. During periods of economic crisis, however, arms control or political improvements might allow for much needed cuts in defense spending, and are pursued with greater vigor. The Johnson administration attempted both unilateral and negotiated arms limitations because of budgetary concerns as President Johnson and Secretary McNamara struggled to pay for the “Great Society” domestic programs and the increasingly costly Vietnam War. They first attempted unilateral “caps” on costly nuclear forces and anti-ballistic missile defenses and when this failed to lead to a reciprocal Soviet response they engaged in formal arms control talks. Détente continued in the Nixon administration, accelerating in 1971 and 1972, simultaneous with rising budget deficits and inflation so serious that Nixon instituted price controls. Nixon’s decision to sharply limit anti-ballistic missile defenses to enable arms control talks was contrary to his strategic views, but necessitated by a difficult budgetary environment that made paying for more missile defense emplacements unrealistic.12 As Nixon told his national security advisor Kissinger in an April 1972 discussion of ballistic missile and anti-ballistic missile developments: “You know we've got a hell of a budget problem. We've got to cut it down, we've got to cut 5 billion dollars off next year's defense budget. So, I don't want to [inaudible: do it?] unless we've got some settlement with the Russians.”13 In practice, unilateral defense cuts and force reductions are frequently combined with negotiated political agreements in a sequential, iterative fashion, where a unilateral reduction will signal seriousness that opens the way for political agreement, which in turn permits even deeper reductions. Defense cuts and force reductions are not only a means to achieve rivalry termination, but also a goal in and of themselves that rivalry termination helps secure. Leaders are seeking resources from defense they can use elsewhere. Thus when Argentine leader Raul Alfonsín campaigned for the need for drastic budgetary austerity, his specific “platform was the reduction of military spending to use it for the other ministries, connected with the concept of eliminating the hypothesis of conflict” with Argentinian rivals, according to Adalberto Rodríguez Giavarini, who served in Alfonsín’s ministry of defense (and later was Argentina’s foreign minister).14 Similarly, Gorbachev was motivated to reduce arms in the late 1980s because he determined it was necessary to cut Soviet defense spending and defense production, and repurpose part of the defense industry to make consumer and civilian capital goods, according to contemporary U.S. Central Intelligence Agency classified assessments.15 Thus the “main reason” why strategic arms control breakthroughs occurred from 1986 to 1988 and the Soviet Afghan intervention concluded in 1989 was a realization within the Politburo of “excessively high expenditures on defense,” according to Nikolai Ryzhkov, Gorbachev’s prime minister.16 Economic Downturns Provoke Strategic Reassessment: Threat Deflation and Prioritization Economic downturns encourage leaders to seek new ideas to use to frame their policy problems. During periods of economic difficulty, elites can come to realize that their problems are not amenable to old solutions, and search for new ideas.17 During an economic crisis, politics and policy are “more fluid,” as old answers seem stale and insufficient.18 An ideational entrepreneur that can link economic lemons to foreign policy lemonade can find a patron when leaders are casting about for ways to reframe the world in acceptable ways to their peers and publics. The behavior of an old foe is often ambiguous, and can be viewed as either injurious to one’s interests or neutral toward them. During periods of normalcy, the motivation of defense establishments is tilted toward threat and danger. During periods of economic crisis, national leaders have a counteracting motivation to downplay such dangers, so that the threats faced by a nation are manageable through available resources. Economic difficulties provide a motivation for leaders to view equivocal signals from the international system in a way that is benign. To the extent that rivalries are perpetuated because of threat inflation, economic downturns provide incentives to deflate the threat, potentially disrupting cycles of competition and enmity. South Korean president Kim Dae-jong came to power in the aftermath of the 1998 Asian economic crisis, pursued a “sunshine policy” toward the North, cut South Korean defense spending in nominal and real terms, and pursued a policy toward North Korea that political scientist Dong Sun Lee called “threat deflation” despite the growing North Korean nuclear weapons threat.19 Economic crises can also spur strategic reassessment through another channel. If leaders view economic problems as structural, rather than a temporary gale, they may come to question whether available national resources are sufficient to confront all of the national threats identified in the past. This creates incentives to economize threats, seeking political settlements where possible in order to focus remaining resources on competitions that can be won. A concrete example: in 1904, the chancellor to the Exchequer wrote his cabinet colleagues: “[W]e must frankly admit that the financial resources of the United Kingdom are inadequate to do all that we should desire in the matter of Imperial defense.”20 The result was a British decision to minimize political disagreement with the United States and focus on other defense challenges. While such a decision is in line with realist advice, it occurred not when the power trajectories were evident to British decisionmakers but when the budget situation had reached a crisis that could no longer be ignored. Economic Downturns Increase Incentives for International Economic Cooperation Economic downturns not only create incentives to cut spending, they encourage vigorous pursuit of opportunities for economic cooperation. This, too, can engender conciliatory behavior. Economic downturns can increase motives to pursue trade and investment. Rivalries with old foes often directly impinge on trade and investment with the adversary and may indirectly impinge on trade and investment with third parties, especially if the rivalry is viewed as being likely to generate disruptive military conflict. Additionally, economic aid is sometimes used as an inducement for adversaries to set aside a political dispute. This aid can either serve as a side payment from one rival to another, or it can be offered by a third party to one or both rivals as an incentive to set aside lingering disputes. Such aid is more attractive during periods of economic turmoil than during periods of comparative normalcy. In South Asia, India and Pakistan struggled from 1947 to 1960 with how to manage water resources in the Indus Rivers basin, inheriting a canal system meant to service pre- partitioned India. Pakistan, suffering an economic downturn, and India, reliant on foreign aid to avert economic crisis, agreed to an Indus Waters Treaty in 1960 to resolve the lingering dispute, made possible in substantial part because of World Bank financing that was especially attractive to the struggling economies. In the Middle East, Egypt and Israel made the hard choices necessary for the Camp David accord in 1979 precisely because the Sadat and Begin governments faced difficult economic situations at home that made the U.S. aid guarantee in exchange for a peace agreement especially attractive.21 In 1982, the Yemen’s People’s Republic agreed to stop its attempts to destabilize Oman, because otherwise Yemen would not receive economic assistance from Arab oilproducing states that it desperately needed.22 In the late 1990s, El Niño-induced flooding devastated Ecuador and Peru, spurring reconciliation as leaders sought to increase trade, secure investment, and slash military expenditures so they could be used at home.23 As one Western diplomat assessed at the time, Ecuador and Peru “have decided it's better to see reason…. They see foreign companies eager to invest in South America, and if Peru and Ecuador are in conflict, it makes them less attractive than, say, Argentina or Brazil or Chile for investment purposes. That's the last thing either country wants.”24 Economic Downturns Can Cause Meaningful Leadership Change The above mechanisms have identified how economic difficulties can alter the preferences of an incumbent leader. Additionally, economic crises can lead to leadership turnover and, during periods of difficulty, the selection process that determines new leadership can loosen ideological strictures that relate to extant rivalries. Leaders may be selected based on judgments about their ability to cope with economic problems, with greater elite acceptance of ideological heterogeneity in foreign policy beliefs than in periods of normalcy.25 In Stephen Brooks and William Wohlforth’s words, “If everything is going well or is stable, then why select leaders who might subvert the tried-and-true identity? But if that identity is leading to increased material difficulties, pressure for change will likely mount. In these circumstances, those who are willing to alter or adjust the hallowed precepts of the existing identity and its associated practices are more likely to assume power.”26 Economic crisis, then, can spur incumbent leaders to either abandon the “baggage” of rivalry or facilitate the selection of new leaders that do not carry such baggage. The most well-known example of an incumbent selectorate looking for a reformer, even one without much foreign policy experience, involves Mikhail Gorbachev’s ascension to the Soviet premiership. In political scientist Jerry Hough’s words, “If the rate of economic growth continued to decline, if administrative and labor efficiency continued to fall, if corruption was not punished, these conditions would have dangerous consequences for the [Soviet Union in the] 1980s and 1990s…. Gorbachev’s promotion was an answer to these concerns.”27

## [EXT] Status Quo

#### Howard, Paul “To Lower Drug Prices Innovate, Don’t Regulate” (September 23, 2015). New York Times September 23, 2015.

[Research](https://economics.stanford.edu/files/Kutyavina_HThesis2010.pdf) (from the Stanford Economics School of Humanities and Sciences) shows that price controls in the United Sates would powerfully dampen innovation. "Cutting prices by 40 to 50 percent in the U.S. will lead to between 30 to 60 percent fewer R&D projects being undertaken," one [study](https://www.nber.org/papers/w11114) found. A 2008 RAND study exploring the effect of U.S. price controls on those aged 55 to 59 in the United States and Europe similarly found that, on net, pharmaceutical price controls would hurt patients.

The idea that we “overspend” on drugs is also misleading. In 2014, drug spending accounted for just 10 percent of U.S. health care spending, and according to government actuaries, spending will increase by only 0.4 percentage points over the next decade. Hospitals, for comparison, account for more than 30 percent of total health care spending. Countries that use price controls advocated by industry critics actually spend a larger share on drugs and use fewer cost-saving generics than the United States does.

## [EXT Bee Movie Script]

#### Script

Smith, Jason, 2007, "Bee Movie Script," No Publication, <http://www.script-o-rama.com/movie_scripts/a1/bee-movie-script-transcript-seinfeld.html>

Bee Movie Script - Dialogue Transcript

According to all known laws of aviation, there is no way a bee should be able to fly. Its wings are too small to get its fat little body off the ground. The bee, of course, flies anyway because bees don't care what humans think is impossible. Yellow, black. Yellow, black. Yellow, black. Yellow, black. Ooh, black and yellow! Let's shake it up a little. Barry! Breakfast is ready! Coming! Hang on a second. Hello? - Barry? - Adam? - Can you believe this is happening? - I can't. I'll pick you up. Looking sharp. Use the stairs. Your father paid good money for those. Sorry. I'm excited. Here's the graduate. We're very proud of you, son. A perfect report card, all B's. Very proud. Ma! I got a thing going here. - You got lint on your fuzz. - Ow! That's me! - Wave to us! We'll be in row 118,000. - Bye! Barry, I told you, stop flying in the house! - Hey, Adam. - Hey, Barry. - Is that fuzz gel? - A little. Special day, graduation. Never thought I'd make it. Three days grade school, three days high school. Those were awkward. Three days college. I'm glad I took a day and hitchhiked around the hive. You did come back different. - Hi, Barry. - Artie, growing a mustache? Looks good. - Hear about Frankie? - Yeah. - You going to the funeral? - No, I'm not going. Everybody knows, sting someone, you die. Don't waste it on a squirrel. Such a hothead. I guess he could have just gotten out of the way. I love this incorporating an amusement park into our day. That's why we don't need vacations. Boy, quite a bit of pomp... under the circumstances. - Well, Adam, today we are men. - We are! - Bee-men. - Amen! Hallelujah! Students, faculty, distinguished bees, please welcome Dean Buzzwell. Welcome, New Hive City graduating class of... ...9:15. That concludes our ceremonies. And begins your career at Honex Industries!

# The Game Plan

### Pre-written Drop-Opp

Our opponents have dropped our only contention that price controls will cause the extinction of the human race. More importantly, the thing that they support will cause the extinction of the human race, according to our opponents as they have made no rebuttal to our contention.

### Opp Contradict

Our opponents have tried to argue that price controls will not help the economy, they may have proved our case flawed, but they also just admitted that their case is completely wrong. They’ve completely contradicted themselves and should lose this round on merit for not arguing consistently.

### Final Focus

Judge, this debate has been about one thing: what’s best for people. What is better? Keeping the status quo, maintain the peace held together by the free market, or implement an unnecessary economic policy that could cause the extinction of the human race? Judge, the decision here is easy, price controls are a terrible solution and as such I urge you vote in strong negation of the resolution. [Read Bee Movie Script]